

Phytochemistry Vol. 68, No. 5, 2007

Reports on Structure Elucidation

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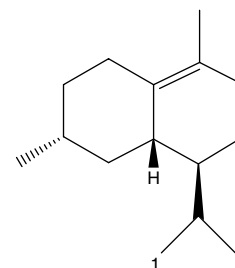
TERPENOIDS

A sesquiterpene hydrocarbon from the bogwoods of *Cryptomeria japonica* D. Don, presumably formed by diagenetic hydrogenation

pp 587–590

Hiroe Narita\*, Kazuo Furihata, Shigenori Kuga, Mitsuyoshi Yatagai

A sesquiterpene hydrocarbon, cadina-1(10)-ene (**1**), has been isolated from the bogwoods of *Cryptomeria japonica* D. Don. Structure elucidation resulted from spectroscopic methods (GC–MS, NMR).

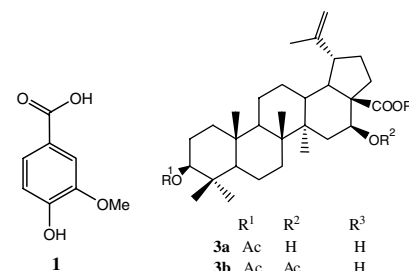


$\alpha$ -Glucosidase inhibitory pentacyclic triterpenes from the stem bark of *Fagara tessmannii* (Rutaceae)

pp 591–595

Luc Meva'a Mbaze, Herve Martial P. Poumale, Jean Duplex Wansi\*, Jean Alexandre Lado, Shamsun Nahar Khan, Muhammad Choudhary Iqbal, Bonaventure Tchaleu Ngadjui, Hartmut Laatsch

Two pentacyclic triterpene acetates derivatives were isolated from *Fagara tessmannii* Engl. Compounds **1** and **3a** showed significant inhibition of  $\alpha$ -glucosidase.

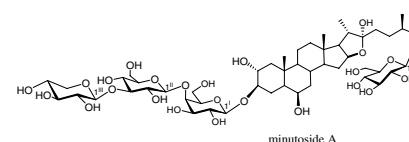


Saponins from *Allium minutiflorum* with antifungal activity

pp 596–603

Elisa Barile, Giuliano Bonanomi, Vincenzo Antignani, Behzad Zolfaghari, S. Ebrahim Sajjadi, Felice Scala, Virginia Lanzotti\*

Three saponins, minutoside A–C, were isolated from the bulbs of *Allium minutiflorum* Regel. Their stereostructure was carried out by spectroscopic analyses, including 2D NMR spectroscopy and mass spectrometry, and chemical methods. The isolated compounds showed a significant antifungal activity depending on their concentration and with the following rank: minutoside B > minutoside C  $\gg$  minutoside A.

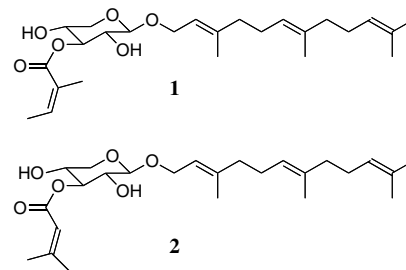


### Cytotoxic farnesyl glycosides from *Pittosporum pancheri*

pp 604–608

Véronique Éparvier, Odile Thoison, Hadjira Bousserouel, Françoise Guéritte, Thierry Sévenet, Marc Litaudon\*

Two farnesyl monoglycosides, pancherins A (**1**) and B (**2**) were isolated from the bark of *Pittosporum pancheri*. The new compounds displayed a significant activity in the *in vitro* cytotoxic assay against KB cancer cell line.

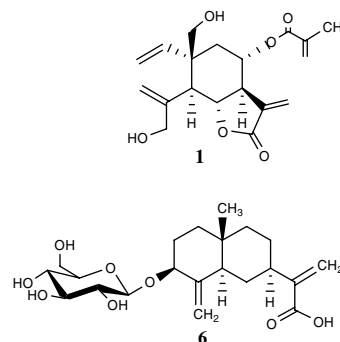


### Elemanolide sesquiterpenes and eudesmane sesquiterpene glycosides from *Centaurea hierapolitana*

pp 609–615

Canan Karamenderes, Erdal Bedir\*, Rahul Pawar, Sura Baykan, Ikhlas A. Khan

Elemanolide sesquiterpenes, hierapolitanins A and B (**1**, **2**), eudesmane-type sesquiterpene glycosides, hierapolitanins C and D (**6**, **7**) were isolated from the aerial parts of *Centaurea hierapolitana* Boiss. (Asteraceae). Hierapolitanins C and D represent the first two members of sesquiterpene glycosides in *Centaurea* L. genus.

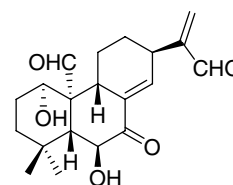


### *ent*-Abietane diterpenoids from *Isodon rubescens* var. *rubescens*

pp 616–622

Sheng-Xiong Huang, Jian-Xin Pu, Wei-Lie Xiao, Li-Mei Li, Zhi-Ying Weng, Yan Zhou, Quan-Bin Han, Shu-Lin Peng, Li-Sheng Ding, Li-Guang Lou, Han-Dong Sun\*

*ent*-Abietane diterpenoids, hebeiabinins A–F (**1**–**5**), together with seven known diterpenoids were isolated from leaves of *Isodon rubescens* var. *rubescens*. Structures of **1**–**5** were established on the basis of spectroscopic analyses, including application of 2D NMR spectroscopic techniques. The diterpenoids isolated were evaluated for the cytotoxicity against A549, HT-29, and K562 tumor cell lines. Compound **5** was the most active with IC<sub>50</sub> value of 0.91  $\mu$ M against A549 cells.

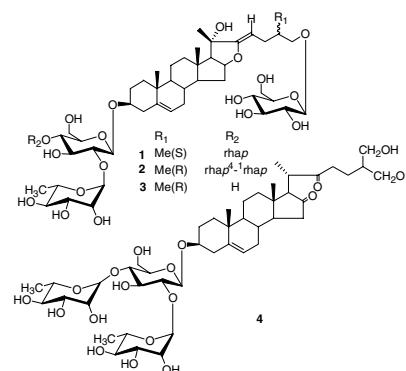


### Steroidal saponins from *Smilax china* and their anti-inflammatory activities

pp 623–630

Bo Shao, Hongzhu Guo\*, Yajun Cui, Min Ye, Jian Han, Dean Guo\*

Steroidal saponins **1**, **2**, **3** and **4** were isolated from *Smilax china* L. These compounds showed inhibition of cyclooxygenase-2 enzyme (COX-2) activity and mild inhibition of TNF $\alpha$  (tumor necrosis factor  $\alpha$ ) production.

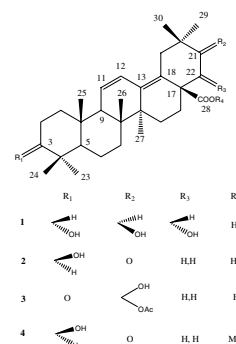


## Oleanane-type triterpenes from the flowers, pith, leaves, and fruit of *Tetrapanax papyriferus*

pp 631–635

Jiau-Ching Ho, Chiu-Ming Chen, Lie-Ching Row\*

Oleanane-type triterpenes were isolated from *Tetrapanax papyriferus* (Hook) K. Koch, whose structures were determined by analysis of spectroscopic data, including by 1D and 2D NMR. Papyriogenin A (**8**) exhibited anti-HIV activity and low cytotoxicity in acutely infected H9 lymphocytes.



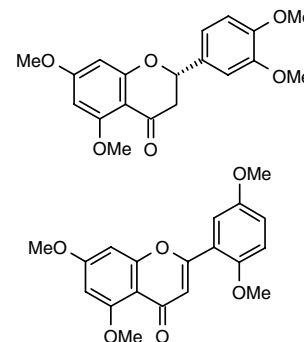
## PHENOLICS

### Flavonoids from *Limnophila indica*

pp 636–639

Nimmanapalli P. Reddy, Bandi A.K. Reddy, Duvvuru Gunasekar\*, Alain Blond, Bernard Bodo, Madugula M. Murthy

Two flavonoids, (2*S*)-5,7,3',4'-tetramethoxyflavanone and 5,7,2',5'-tetramethoxyflavone, together with three known flavonoids were isolated from the whole plant of *Limnophila indica*.

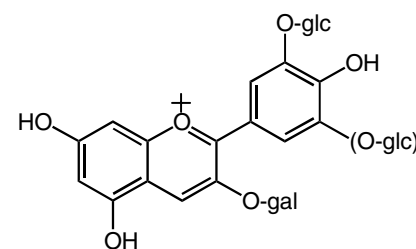


### Anthocyanin 3-galactosides from *Cornus alba* 'Sibirica' with glucosidation of the B-ring

pp 640–645

Ørjan Bjrø, Torgils Fossen, Øyvind M. Andersen\*

The three anthocyanins, delphinidin 3-*O*-β-galactopyranoside-3',5'-di-*O*-β-glucopyranoside and the 3-*O*-β-galactopyranoside-3'-*O*-β-glucopyranosides of delphinidin and cyanidin were isolated from bluish white berries of *Cornus alba* 'Sibirica'. Autumn leaves and bark contained only cyanidin 3-*O*-β-galactopyranoside.

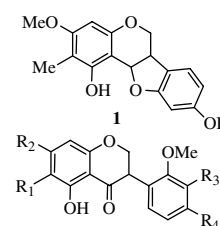


### C-methylated and C-prenylated isoflavonoids from root extract of *Desmodium uncinatum*

pp 646–651

Salome M. Guchu, Abiy Yenesew\*, Muniru K. Tsanuo, Nicholas K. Gikonyo, John A. Pickett, Antony M. Hooper, Ahmed Hassanali

Three isoflavonoids, uncinacarpin (**1**), uncinanone D (**3**) and uncinanone E (**4**), along with three known compounds were isolated from the roots of *Desmodium uncinatum*, which induced germination of *Striga hermonthica* seeds. The isolated compounds were characterised by spectroscopic methods.



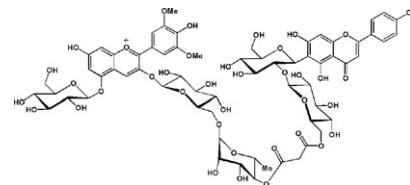
**4** R<sub>1</sub> = Me, R<sub>2</sub> = OMe, R<sub>3</sub> = H, R<sub>4</sub> = OH  
**3** R<sub>1</sub> = Prenyl, R<sub>2</sub> = OH, R<sub>3</sub> = OMe, R<sub>4</sub> = OMe

### Covalent anthocyanin–flavone dimer from leaves of *Oxalis triangularis*

pp 652–662

Torgils Fossen\*, Saleh Rayyan, Maya H. Holmberg, Manfred Nimtz, Øyvind M. Andersen

Several equilibrium forms anthocyanin-*C*-glycosy flavone malvidin 3-*O* glucopyranoside (apigmin 6-*C*-sophoroside)malonate, isolated from leaves of *Oxalis triangularis*, have been characterised.



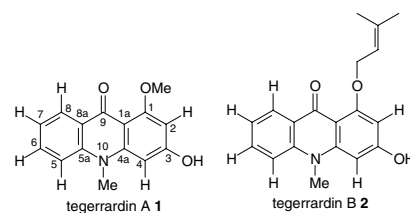
## ALKALOIDS

### Acridone and furoquinoline alkaloids from *Teclea gerrardii* (Rutaceae: Toddalioideae) of southern Africa

pp 663–667

Alain F. Kamdem Waffo, Philip H. Coombes\*, Neil R. Crouch, Dulcie A. Mulholland, Sawsan M.M. El Amin, Peter J. Smith

The stem bark of *Teclea gerrardii* has yielded two acridone alkaloids, tegerrardins A-B 1–2, together with known acridone 3–5 and furoquinoline 6–7 alkaloids, and a known aminobenzophenone 8. Arborinine 3 and evoxine 6 display moderate antiplasmodial activity.

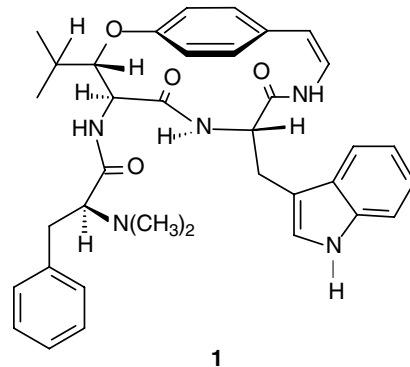


### Constituents of the roots of *Melochia chamaedrys*

pp 668–672

G.C.D. Dias, V. Gressler, S.C.S.M. Hoenzel, U.F. Silva, I.I. Dalcol, A.F. Morel\*

The chemical investigation of *Melochia chamaedrys* (Sterculiaceae) afforded the cyclic peptide alkaloid 1, named *chamaedrine*, and seven other known compounds.



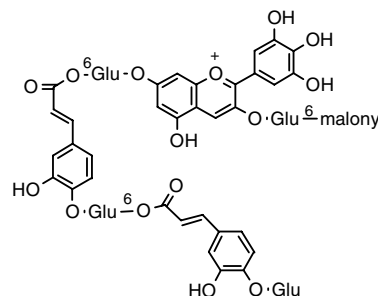
## GENERAL CHEMISTRY

### 7-Polyacylated delphinidin 3,7-diglucosides from the blue flowers of *Leschenaultia* cv. Violet Lena

pp 673–679

Norio Saito, Fumi Tatsuzawa, Yoshikazu Yazaki, Atsushi Shigihara, Toshio Honda\*

Triacyl anthocyanins were isolated from the blue flowers of *Leschenaultia* R. Br. cv. Violet Lena, whose structures were established by spectroscopic methods.

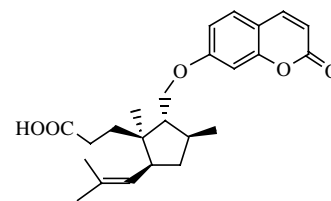


### Ferulsinaic acid, a sesquiterpene coumarin with a rare carbon skeleton from *Ferula* species

pp 680–686

Ahmed A. Ahmed, Mohamed-Elamir F. Hegazy, Amar Zellagui, Salah Rhouati, Tarik A. Mohamed, Ahmed A. Sayed, Mohamed A. Abdella, Shinji Ohta, Toshifumi Hirata\*

Sesquiterpene coumarins were isolated from *Ferula vesceritensis* and *Ferula sinaica*. One of them was a sesquiterpene with a rare carbon skeleton.

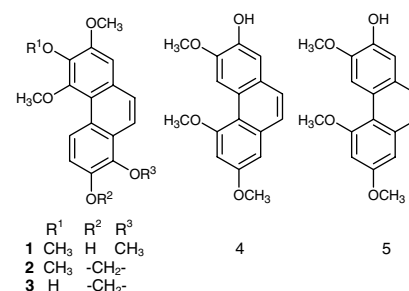


### Phenanthrenes and a dihydrophenanthrene from *Tamus communis* and their cytotoxic activity

pp 687–691

Adriána Kovács, Peter Forgo, István Zupkó, Borbála Réthy, György Falkay, Pál Szabó, Judit Hohmann\*

From the petroleum ether extract of the rhizomes of *Tamus communis*, four phenanthrenes **1–4** and a dihydrophenanthrene (**5**) were isolated. Compounds **1** and **3–5** exhibited significant cytotoxic activity on cervix adenocarcinoma (HeLa) cells; especially **1** and **3** exerted significant cell growth-inhibitory effects, with  $IC_{50}$  8.52 and 3.64  $\mu$ M, respectively.

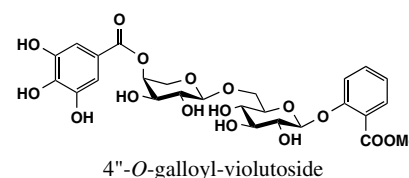


### Aromatic diglycosides from *Cladogynos orientalis*

pp 692–696

Tripetch Kanchanapoom\*

Unusual aromatic diglycosides with galloyl substitution were isolated from the aerial portions of *Cladogynos orientalis*.

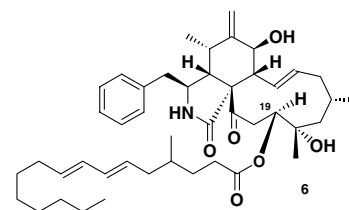


### 10-Phenyl-[11]-cytochalasans from Indonesian mushroom *Microporellus subsessilis*

pp 697–702

Dikdik Kurnia, Kohki Akiyama, Hideo Hayashi\*

Three 10-phenyl-[11]-cytochalasans (**4–6**), together with three known derivatives (**1–3**), were isolated from the MeOH extract of the Indonesian mushroom *Microporellus subsessilis* by bioassay-guided fractionation. The compound **6** and known compounds **1–3** induced immotility in *Artemia salina*. Compound **6** is the first member of cytochalasin family containing a long-chain fatty acid moiety.



**OTHER CONTENTS****Announcement: The Phytochemical Society of Europe****p I**

\* Corresponding author

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